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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/493,121	01/28/2000	Satoshi Miyaguchi	040782-5075-01	1823

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EXAMINER	
WILLIAMS, JOSEPH L	

ART UNIT	PAPER NUMBER
2879	

DATE MAILED: 12/11/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/493,121	MIYAGUCHI ET AL.	
	Examiner	Art Unit	
	Joseph L. Williams	2879	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

P riod for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *03 September 2003*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-24* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-24* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

13)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

a) ☐ The translation of the foreign language provisional application has been received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

DETAILED ACTION

The amendment filed on 03 September 2003 has been entered.

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1, 10, 23, and 24 are rejected under 35 U.S.C. 102(b) as being anticipated by Harvey, III et al. (US 5,686,360).

Regarding claim 1, Fig. 4 as well as col. 5, line 25-col. 6, line 10 of Harvey III et al. discloses an organic EL cell (22) for preventing moisture that deteriorates the light-emitting characteristics of the organic EL cell comprising: a substrate (11); a laminate structure formed on the substrate (12), wherein the laminate structure includes at least an anode, an organic light emitting layer, a cathode; a first sealing film formed on the laminate structure (24) and a second sealing film (26) formed on the first sealing film; and a third sealing film (28) formed on the second sealing film.

Regarding claim 10, Harvey ('360) discloses a method for producing an organic EL cell for preventing moisture that deteriorates the light-emitting layer characteristics of the organic EL cell and that includes (similar to claim 1 above) a substrate and a laminated structure formed on the substrate, wherein the laminated structure includes at least an anode, an organic light emitting layer, and a cathode, comprising the steps of

forming a first sealing film (24) on the laminate structure and forming a second sealing film (26) on the first sealing film and a third sealing film (28) formed on the second sealing film.

Regarding claim 23, Harvey ('360) teaches the second sealing film is formed contacting the first sealing film, and wherein the third sealing film is formed contacting the second sealing film.

Regarding claim 24, Harvey ('360) teaches the first sealing film is formed contacting the entire surface of the laminate structure to passivate the cathode.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 2, 4, 9, and 11-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Harvey, III et al. (US 5,686,360) in view of Haskal et al. (US 5,952,778), both of record.

Regarding claim 2, Harvey ('360) discloses all of the claimed limitations except for the first sealing film is an organic passivation film and the second film is a resin film.

Further regarding claim 2, Haskal ('778) discloses an EL device comprised of the first sealing film is an inorganic passivation film and the second sealing film is a resin

film, for the purpose of protecting the display from moisture and thus improve its lifetime.

Hence it would have been obvious to one of ordinary skill in the art at the time the invention was made to use the films of Haskal in place of films of Harvey for the purpose of protecting the display from moisture and thus improve its lifetime.

Regarding claim 4, Haskal ('778) discloses the first sealing film and the third sealing film as being SiO_2 (See col. 3, lines 45-56 and 64-65, wherein glass is comprised of silicon dioxide (by definition)).

The reason for combining is the same as for claim 2 above.

With regards to claim 9, Fig. 2 of Haskal discloses first and third sealing films.

Note- this claim recites a product-by process limitation; and for product-by process limitations, determination of patentability is based on the product itself (a first sealing film and a third sealing film) and not the process limitation (formed by vapor deposition). More specifically, if a product-by process limitation is the same as or obvious from the product of the prior art, the claim is unpatentable even though the prior product was made by a different process (See MPEP 2113). Consequently, Haskal discloses first and third inorganic sealing films, which are the same as the applicants' claimed sealing films.

The reason for combining is the same as for claim 2 above.

Regarding claim 11, Haskal ('778) discloses the first sealing film is an inorganic passivation film and the second sealing film is a resin film.

The reason for combining is the same as for claim 2 above.

Regarding claim 12, Haskal ('778) discloses the step of forming a third sealing film (36) formed on the second sealing film (34), wherein the third sealing film is an inorganic passivation film (See col. 3, lines 64-65 as well as col. 4; lines 58-65, wherein inorganic film is glass which is comprised of silicon dioxide (by definition)).

The reason for combining is the same as for claim 2 above.

Regarding claim 13, Haskal ('778) discloses the first sealing film and the third sealing film as being SiO_2 (See col. 3, lines 45-56 and 64-65, wherein glass is comprised of silicon dioxide (by definition)).

The reason for combining is the same as for claim 2 above.

Claims 5-8 and 14-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Harvey, III et al. (US 5,686,360) in view of Suzuki et al. (US 6,198,217), both of record.

Regarding claims 5 and 14, Harvey ('360) discloses all of the claimed limitations except for the first sealing film is a resin film and the second film is an inorganic passivation film.

Further regarding claims 5 and 14, Suzuki ('217) discloses in column 5, line 49 through column 6, line 6, an EL device comprised of the second sealing film is an inorganic passivation film and the first sealing film is a resin film, for the purpose of protecting the display from moisture and thus improve its lifetime.

Hence it would have been obvious to one of ordinary skill in the art at the time the invention was made to use the films of Suzuki in place of films of Harvey for the purpose of protecting the display from moisture and thus improve its lifetime.

Regarding claims 6 and 15, Fig. 2 of Suzuki et al. discloses the organic EL cell further comprising a third sealing film (30) formed on the second film (through an adhesive if surface is entirely flat), wherein the third sealing film is a resin film (See col. 7, lines 49-60).

The reason for combining is the same as for claim 5 above.

Regarding claims 7 and 16, Suzuki et al. discloses the second sealing film is selected from a group consisting of silicon nitride, SiO_2, and Al_2O_3 (See col. 7, lines 28).

The reason for combining is the same as for claim 5 above.

Regarding claims 8-9, Figs. 1 and 2 of Suzuki et al. disclose a second sealing film (22) as well as a first (20) and a third sealing film (30).

Note- claims 8-9 recite a product-by process limitation; and for product-by process limitations, determination of patentability is based on the product itself (a first

sealing film, a second sealing film and a third sealing film, respectively) and not the process limitation (formed by vapor deposition). More specifically, if a product-by process limitation is the same as or obvious from the product of the prior art, the claim is unpatentable even though the prior product was made by a different process (See MPEP 2113). Consequently, Suzuki et al. discloses first, second and third sealing films that are the same as the applicants' claimed sealing films.

The reason for combining is the same as for claim 5 above.

With regards to claim 17, col. 7, lines 20-26 of Suzuki et al. discloses the second sealing film (22) being formed by vapor deposition.

The reason for combining is the same as for claim 5 above.

Regarding claim 18, col. 6, lines 34-39 of Suzuki et al. ('217) discloses the first sealing film (20) being formed by vapor deposition.

Suzuki et al. ('217) does not specifically discuss the third sealing film (30) being formed by vapor deposition.

However, the use of vapor deposition in order to form or deposit a layer on a portion of an object is notoriously well known of common knowledge in the art, as disclosed by Suzuki et al. ('217), for the purpose of keeping moisture from depositing on the El device during manufacturing and thus improve the lifetime of the device.

Hence, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to use a well known vapor deposition technique as taught

by Suzuki for the first sealing layer, to form and deposit the third sealing film for the purpose of keeping moisture from depositing on the El device during manufacturing and thus improve the lifetime of the device.

4. Claims 19-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Harvey et al. (US 5,686,360) in view of Suzuki et al. (US 6,198,217) as applied to claim 16 above, and further in view of Shibata (US 4,489,101), of record.

Regarding claims 19 and 21, Harvey ('360) in view of Suzuki ('217) teaches all of the claimed limitations, including the use of vapor deposition (column 7, lines 15-28), except for the specific use of the vapor deposition technique being a plasma CVD method.

Further regarding claim 19, Shibata ('101) teaches in column 3, lines 17-35 a method of making an inorganic passivation layer comprised of, in part, using a plasma CVD method for the purpose of forming a passivation layer which has very fine dimensions and very high in dimensional accuracy.

Hence it would have been obvious to one of ordinary skill in the art at the time the invention was made to use the plasma CVD method of Shibata to apply the inorganic passivation film in the device of Harvey and Suzuki for the purpose of forming a passivation layer which has very fine dimensions and very high in dimensional accuracy.

Regarding claims 20 and 22, Shibata ('101) teaches in column 3, lines 29-32 that the silicon nitride is formed from a raw material gas composed only of silane and nitrogen.

The reason for combining is the same as for claims 19 and 22 above, respectively.

Response to Arguments

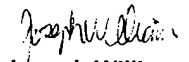
5. Applicant's arguments with respect to claims 1-24 have been considered but are moot in view of the new ground(s) of rejection.

Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Joseph L. Williams whose telephone number is (703) 305-1670. The examiner can normally be reached on M-F (6:30 AM-3:00 PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nimeshkumar D. Patel can be reached on (703) 305-4794. The fax phone number for the organization where this application or proceeding is assigned is (703) 308-7382.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.



Joseph Williams

Examiner
Art Unit 2879